



# MICHIGAN

OFFICE OF THE AUDITOR GENERAL

## AUDIT REPORT

PERFORMANCE AUDIT  
OF THE

HAWTHORN CENTER

BUREAU OF HOSPITALS AND ADMINISTRATIVE OPERATIONS  
DEPARTMENT OF COMMUNITY HEALTH

October 2014



Doug A. Ringler, C.P.A., C.I.A.  
AUDITOR GENERAL

The auditor general shall conduct post audits of financial transactions and accounts of the state and of all branches, departments, offices, boards, commissions, agencies, authorities and institutions of the state established by this constitution or by law, and performance post audits thereof.

– Article IV, Section 53 of the Michigan Constitution

Audit report information can be accessed at:

*<http://audgen.michigan.gov>*



*Performance Audit  
Hawthorn Center  
Bureau of Hospitals and Administrative  
Operations  
Department of Community Health*

**Report Number:**  
391-0215-14

**Released:**  
October 2014

Hawthorn Center, located in Northville, Michigan, provides intensive inpatient psychiatric services to children and adolescents. The mission of the Center is to provide emotionally disturbed children and adolescents with inpatient mental health services that meet the highest standards of quality and safety. The Center provides services for individuals between the ages of 5 and 17 who reside in Michigan and have severe emotional and/or behavioral disorders. The Center does not provide services to individuals whose primary diagnosis is a developmental disability, substance abuse, or juvenile delinquency. As of May 31, 2014, the Center had 57 patients.

Audit Objective			Audit Conclusion
Objective 1: To assess the effectiveness of the Center's efforts to timely conduct required assessments and notifications upon admissions, medication changes, and discharges.			Moderately effective
Finding Related to This Audit Objective	Material Condition	Reportable Condition	Agency Preliminary Response
The Center did not always timely complete or document that it timely completed assessments and notifications required at admissions, discharges, and medication changes ( <u>Finding 1</u> ).		X	Agrees

Audit Objective			Audit Conclusion
Objective 2: To assess the effectiveness of the Center's efforts to monitor medication inventory and disposal.			Moderately effective
Finding Related to This Audit Objective	Material Condition	Reportable Condition	Agency Preliminary Response
The Center did not utilize an inventory control program or periodically inventory its noncontrolled medications ( <u>Finding 2</u> ).		X	Agrees

<b>Audit Objective</b>			<b>Audit Conclusion</b>
Objective 3: To assess the effectiveness of the Center's efforts to investigate and resolve incidents.			Effective
<b>Findings Related to This Audit Objective</b>	<b>Material Condition</b>	<b>Reportable Condition</b>	<b>Agency Preliminary Response</b>
Our audit report does not include any findings related to this audit objective.	Not applicable	Not applicable	Not applicable

<b>Audit Objective</b>			<b>Audit Conclusion</b>
Objective 4: To assess the effectiveness of the Center's efforts to timely address maintenance work order requests.			Moderately effective
<b>Finding Related to This Audit Objective</b>	<b>Material Condition</b>	<b>Reportable Condition</b>	<b>Agency Preliminary Response</b>
The Center did not ensure that information contained in the electronic work order system was accurate and that maintenance staff always completed work orders timely ( <u>Finding 3</u> ).		X	Agrees

A copy of the full report can be obtained by calling 517.334.8050 or by visiting our Web site at: <http://audgen.michigan.gov>

Office of the Auditor General  
201 N. Washington Square, Sixth Floor  
Lansing, Michigan 48913

**Doug A. Ringler, C.P.A., C.I.A.**  
Auditor General

**Laura J. Hirst, C.P.A.**  
Deputy Auditor General



# OAG

Office of the Auditor General

201 N. Washington Square, Sixth Floor • Lansing, Michigan 48913 • Phone: (517) 334-8050 • <http://audgen.michigan.gov>

**Doug A. Ringler, C.P.A., C.I.A.**  
Auditor General

October 17, 2014

Mr. Nick Lyon, Director  
Department of Community Health  
Capitol View Building  
Lansing, Michigan

Dear Mr. Lyon:

This is our report on the performance audit of the Hawthorn Center, Bureau of Hospitals and Administrative Operations, Department of Community Health.

This report contains our report summary; a description of agency; our audit objectives, scope, and methodology and agency responses and prior audit follow-up; comments, findings, recommendations, and agency preliminary responses; two exhibits, presented as supplemental information; and a glossary of abbreviations and terms.

Our comments, findings, and recommendations are organized by audit objective. The agency preliminary responses were taken from the agency's response at the end of our audit fieldwork. The *Michigan Compiled Laws* and administrative procedures require that the audited agency develop a plan to comply with the audit recommendations and submit it within 60 days after release of the audit report to the Office of Internal Audit Services, State Budget Office. Within 30 days of receipt, the Office of Internal Audit Services is required to review the plan and either accept the plan as final or contact the agency to take additional steps to finalize the plan.

We appreciate the courtesy and cooperation extended to us during this audit.

Sincerely,

Doug Ringler  
Auditor General



# TABLE OF CONTENTS

## HAWTHORN CENTER BUREAU OF HOSPITALS AND ADMINISTRATIVE OPERATIONS DEPARTMENT OF COMMUNITY HEALTH

	<u>Page</u>
INTRODUCTION	
Report Summary	1
Description of Agency	7
Audit Objectives, Scope, and Methodology and Agency Responses and Prior Audit Follow-Up	8
COMMENTS, FINDINGS, RECOMMENDATIONS, AND AGENCY PRELIMINARY RESPONSES	
Effectiveness of the Center's Efforts to Timely Conduct Required Assessments and Notifications Upon Admissions, Medication Changes, and Discharges	13
1. Timeliness of Assessments and Notifications	13
Effectiveness of the Center's Efforts to Monitor Medication Inventory and Disposal	16
2. Medication Inventory	17
Effectiveness of the Center's Efforts to Investigate and Resolve Incidents	18
Effectiveness of the Center's Efforts to Timely Address Maintenance Work Order Requests	18
3. Work Order Monitoring	19

## SUPPLEMENTAL INFORMATION

Exhibit 1 - Patient Admissions, Discharges, and Average Daily Census Data	24
Exhibit 2 - Expenditures and Average Cost Per Patient	25

## GLOSSARY

Glossary of Abbreviations and Terms	27
-------------------------------------	----

## Description of Agency

The Hawthorn Center operates under the jurisdiction of the Department of Community Health and is located in Northville, Michigan. The Center provides intensive inpatient psychiatric services to children and adolescents. The mission\* of the Center is to provide emotionally disturbed children and adolescents with inpatient mental health services that meet the highest standards of quality and safety. The Center is accredited by the Joint Commission\* and is certified as a provider of inpatient psychiatric hospital services in the Medicare program.

The Center provides services for individuals between the ages of 5 and 17 who reside in Michigan and have severe emotional and/or behavioral disorders. The Center does not provide services to individuals whose primary diagnosis is a developmental disability, substance abuse, or juvenile delinquency. As of May 31, 2014, the Center had a bed capacity for 118 patients. Referrals to the Center are accepted only from community mental health service providers that serve the county in which the individual resides. On the day of admission, patients are evaluated by the psychiatric, nursing, social work, and pediatric staff. Within 3 to 5 days after admission, psychological\*, educational, and dental assessments\* are completed. The Center operates a school year round, and patients attend full-day sessions. When not in school, patients participate in various treatment and recreational activities planned and supervised by nursing and recreational therapy staff. The Center is also a training site for child psychiatric residents; psychology interns; and students in social work, special education, and nursing.

For fiscal year 2012-13, the Center had operating expenditures of \$24.5 million, of which 87% were personnel costs (see Exhibit 2). As of May 31, 2014, the Center had 195 employees, 30 contractual employees, and 57 patients.

\* See glossary at end of report for definition.

## **Audit Objectives, Scope, and Methodology and Agency Responses and Prior Audit Follow-Up**

### Audit Objectives

Our performance audit\* of the Hawthorn Center, Bureau of Hospitals and Administrative Operations, Department of Community Health (DCH), had the following objectives:

1. To assess the effectiveness\* of the Center's efforts to timely conduct required assessments and notifications upon admissions, medication\* changes, and discharges.
2. To assess the effectiveness of the Center's efforts to monitor medication inventory and disposal.
3. To assess the effectiveness of the Center's efforts to investigate and resolve incidents.
4. To assess the effectiveness of the Center's efforts to timely address maintenance work order requests.

### Audit Scope

Our audit scope was to examine the program and other records related to the Hawthorn Center. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. Our audit procedures, which included a preliminary survey, audit fieldwork, report preparation, analysis of agency responses, and quality assurance, generally covered the period October 1, 2011 through May 31, 2014.

Our audit was not directed toward examining patient care or clinical decisions or opinions made by Center staff concerning patient treatment identified within a patient's individual plan of service\* or expressing an opinion on those clinical decisions. Also,

\* See glossary at end of report for definition.

our audit was not directed toward examining the processes or investigations of the Office of Recipient Rights at the Center. In addition, our audit report includes supplemental information presented as Exhibits 1 and 2. Our audit was not directed toward expressing an opinion on this information.

### Audit Methodology

We conducted a preliminary survey to gain an understanding of the Center's operations and internal control\* and to establish our audit objectives and methodology. Our preliminary survey included:

- Conducting interviews with various Center and DCH staff.
- Observing operations.
- Reviewing selected policies and procedures and the Mental Health Code.
- Examining patient case file documentation.
- Analyzing the Center's expenditure and procurement card\* records.
- Touring the Center's facility.

To accomplish our first objective, we:

- Interviewed Center staff and reviewed Center policies and procedures related to assessments and notifications required at patient admissions, medication changes, and discharges.
- Randomly selected for review 60 patient files from the period October 1, 2011 through February 28, 2014 to determine whether the Center completed required patient assessments and notifications timely.

To accomplish our second objective, we:

- Interviewed Center staff and reviewed selected Center policies and procedures.

\* See glossary at end of report for definition.

- Observed pharmacy operations, including controls over access to medications and the monthly inventory.
- Analyzed and reviewed data related to medication refunds and medication inventories.

To accomplish our third objective, we:

- Interviewed Center staff and reviewed DCH and Center policies and procedures related to investigating and resolving incidents.
- Analyzed and reviewed Center data and documentation related to incident reports\*.
- Randomly selected for review 35 incident reports to determine whether the Center investigated and resolved the incidents.

To accomplish our fourth audit objective, we:

- Interviewed Center staff to obtain an understanding of the processes in place for maintenance work orders.
- Obtained, analyzed, and reviewed information in the electronic work order system to determine if the Center addressed maintenance work orders in a timely manner.
- Judgmentally selected for review 15 maintenance work orders from a population of 239 not completed work orders to determine whether the information contained in the work order system was accurate. Because we judgmentally selected the items to test, our sample results may not apply proportionately to the entire population.

We based our audit conclusions on our audit efforts as described in the preceding paragraphs and the resulting reportable conditions\* noted in the comments, findings, recommendations, and agency preliminary responses section. Reportable conditions are less severe than a material condition\* but represent opportunities for improvements and deficiencies in internal control.

\* See glossary at end of report for definition.

When selecting activities or programs for audit, we direct our efforts based on risk and opportunities to improve the operations of State government. Consequently, we prepare our performance audit reports on an exception basis.

#### Agency Responses and Prior Audit Follow-Up

Our audit report contains 3 findings and 3 corresponding recommendations. DCH's preliminary response indicates that the Center agrees with all the recommendations.

The agency preliminary response that follows each recommendation in our report was taken from the agency's written comments and oral discussion at the end of our audit fieldwork. Section 18.1462 of the *Michigan Compiled Laws* and the State of Michigan Financial Management Guide (Part VII, Chapter 4, Section 100) require DCH to develop a plan to comply with the audit recommendations and submit it within 60 days after release of the audit report to the Office of Internal Audit Services, State Budget Office. Within 30 days of receipt, the Office of Internal Audit Services is required to review the plan and either accept the plan as final or contact the agency to take additional steps to finalize the plan.

We released our prior performance audit of Hawthorn Center, Bureau of Hospitals, Centers, and Forensic Mental Health Services, Department of Community Health (39-215-04), in April 2005. Within the scope of this audit, we followed up 2 of the 3 prior audit recommendations. The Center complied with 1 of the 2 prior audit recommendations. We rewrote the other prior audit recommendation for inclusion in Finding 1 of this audit report.

COMMENTS, FINDINGS, RECOMMENDATIONS,  
AND AGENCY PRELIMINARY RESPONSES

# EFFECTIVENESS OF THE CENTER'S EFFORTS TO TIMELY CONDUCT REQUIRED ASSESSMENTS AND NOTIFICATIONS UPON ADMISSIONS, MEDICATION CHANGES, AND DISCHARGES

## COMMENT

**Audit Objective:** To assess the effectiveness of the Hawthorn Center's efforts to timely conduct required assessments and notifications upon admissions, medication changes, and discharges.

**Audit Conclusion:** We concluded that the Center's efforts to timely conduct required assessments and notifications upon admissions, medication changes, and discharges were moderately effective.

Factors leading to this conclusion included the:

- Potential negative impact of untimely or incomplete assessments and notifications to the patients' treatment.
- Large volume of required assessments and notifications.
- Reportable condition related to the timeliness of assessments and notifications.

## FINDING

### 1. Timeliness of Assessments and Notifications

The Center did not always timely complete or document that it timely completed assessments and notifications required at admissions, discharges, and medication changes. Without complete and timely assessments and notifications, the continuing care and treatment of the patient could be adversely affected.

Center staff use the assessments completed at admission for determining if the patient has allergies, identifying the best seclusion or restraint method, determining required medications, identifying necessary dental work, and creating each patient's individual plan of service (IPOS). The IPOS is the fundamental document in the patient's record that details the goals and objectives for the patient and helps ensure that the Center provides the appropriate services, support, and treatments. Assessments and notifications completed at discharge are used by the patient's local community mental health services program and parents/guardians to help

ensure appropriate mental health services once the patient is discharged from the Center. Without complete and timely medication monitoring, the potential exists that the Center could be unaware of a patient having a negative reaction to a medication.

The Center's standard operating procedure requires that it complete specific assessments and notifications within established time frames when the Center admits a patient, discharges a patient, or changes patient medication.

Our review of the 1,244 required assessments and notifications at admission and discharge and the 138 required medication change assessments for the 60 patients disclosed:

- a. The Center did not timely complete 123 (10%) of the 1,244 assessments and notifications required at admission or discharge. The number of days overdue ranged from 1 day to 36 days, with an average of 5 days overdue. In addition, the Center did not have sufficient documentation to support that it timely completed 3 assessments and notifications at admission or discharge.

The overdue assessments and notifications by category are as follows:

Required Assessment or Notification	Patient Files Applicable	Number Late	Percent Late	Completion Requirement	Days Late
Psychological	13	8	62%	7 days	Average 14 Maximum 36
IPOS document	56	23	41%	3 days from IPOS meeting	Average 7 Maximum 24
Therapist discharge summary*	60	33	55%	48 hours from discharge	Average 6 Maximum 24
Dental	23	4	17%	7 days	Average 6 Maximum 10
Social work*	60	12	20%	3 business days	Average 3 Maximum 13
Seclusion and restraint*	60	2	3%	Admission	Average 3 Maximum 5
Pre-planning IPOS worksheet*	60	14	23%	3 days	Average 3 Maximum 5
Fitness*	26	2	8%	5 days	Average 3 Maximum 4
Psychiatric*	60	6	10%	24 hours	Average 2 Maximum 5
Psychiatrist discharge summary*	60	16	27%	24 hours from discharge	Average 2 Maximum 5
IPOS meeting	56	2	4%	7 days	Average 1 Maximum 1
Psychiatric discharge note*	60	1	2%	Discharge	Average 1 Maximum 1

\* See glossary at end of report for definition.

- b. The Center did not have documentation to support that it completed 12 of the 1,244 assessments or notifications required at admission or discharge.

The exceptions related to the following types of assessments and notifications:

Required Assessment or Notification	Patient Files Applicable	Number Not Documented	Percent Not Completed
Psychological	13	3	23%
Dental	23	3	13%
Fitness	26	1	4%
Pre-planning IPOS worksheet	60	2	3%
Seclusion and restraint	60	1	2%
Discharge instructions*	60	1	2%
Discharge medication reconciliation*	60	1	2%

- c. The Center did not complete first dose precaution medication monitoring required at medication changes for 23 (17%) of the 138 medication changes in the 60 patient files reviewed.

### **RECOMMENDATION**

We recommend that the Center always timely complete and document that it timely completed assessments and notifications required at admissions, discharges, and medication changes.

### **AGENCY PRELIMINARY RESPONSE**

The Center acknowledges that there were opportunities for improvement in the prior process of manually completing the assessments and notifications. The Center has since implemented a new electronic medical records (EMR) system to complete the assessments and notifications required at admissions, discharges, and medication changes.

The Center concurs that it did not timely complete 123 (10%) of the 1,244 paper assessments and notifications required at admission or discharge. The Center also concurs that it did not have documentation that it completed 12 (less than 1%) of 1,244 assessments or notifications required at admission and did not complete the first dose precaution medication monitoring assessments required at medication changes for 23 (17%) of the 138 medication changes reviewed. The

\* See glossary at end of report for definition.

Center informed us that all completed assessments and notifications are now entered and stored in the EMR system; therefore, the manual processes/performance data cited in the finding is no longer pertinent. The Center indicated that the EMR allows rapid recognition and communication of deficiencies to responsible staff. In addition, the Center informed us that efficiencies have been gained as some of the discharge summaries have been combined (therapist and psychiatrist), while other assessments (dental) have been eliminated. Finally, the Center indicated that timelines for completion of the assessments are also being re-evaluated as several assessments (including psychological assessments) needed to be updated or eliminated based on the respective circumstances.

## **EFFECTIVENESS OF THE CENTER'S EFFORTS TO MONITOR MEDICATION INVENTORY AND DISPOSAL**

### **COMMENT**

**Audit Objective:** To assess the effectiveness of the Center's efforts to monitor medication inventory and disposal.

**Audit Conclusion:** **We concluded that the Center's efforts to monitor medication inventory and disposal were moderately effective.**

Factors leading to this conclusion included the:

- Center performing a monthly inventory of controlled medications\*.
- Lack of known instances of medication loss.
- Low volume of medication inventory at the Center.
- Reportable condition related to medication inventory.

\* See glossary at end of report for definition.

## **FINDING**

### **2. Medication Inventory**

The Center did not utilize an inventory control program or periodically inventory its noncontrolled medications\*. These medications accounted for an estimated \$635,000 (96%) of the Center's \$664,000 total medication costs for the period October 1, 2011 through May 31, 2014. Without utilizing such a program, the Center could not properly account for the noncontrolled medications it purchased and identify potential theft, loss, waste, or misuse of the noncontrolled medications.

To accommodate patients' medication needs, the Center operates an on-site pharmacy that orders, receives, and stocks hundreds of different prescriptions and over-the-counter medications, including both controlled and noncontrolled medications. Noncontrolled medications included drugs such as Abilify and Seroquel, which are psychotropic medications\*.

State of Michigan Financial Management Guide (FMG) Part II, Chapter 12, Section 100 requires agencies maintaining warehouses or stock centers to establish and maintain an inventory control program. Also, the FMG requires agencies to verify the accuracy of inventory systems by completing a physical count of the inventory and comparing it with the inventory balances.

The Department of Community Health (DCH) and the Center implemented Mediware\* beginning in August 2012. The Center uses Mediware to determine medications dispensed to individual patients. DCH indicated that Mediware should be fully operational, specifically the inventory component, during January 2015 and, once fully operational, Mediware should provide the Center with the ability to maintain a perpetual inventory system of noncontrolled medications.

## **RECOMMENDATION**

We recommend that the Center utilize an inventory control program and periodically inventory its noncontrolled medications.

## **AGENCY PRELIMINARY RESPONSE**

The Center agrees that it did not utilize an inventory control program or periodically inventory its noncontrolled substances during the audit period. The Center

\* See glossary at end of report for definition.

informed us that a perpetual inventory control program will be implemented by DCH in the State hospitals in 2015. The Center also informed us that once implemented, the Center will be able to continuously inventory all medications as they are received and subsequently dispensed by the pharmacy.

## **EFFECTIVENESS OF THE CENTER'S EFFORTS TO INVESTIGATE AND RESOLVE INCIDENTS**

### **COMMENT**

**Audit Objective:** To assess the effectiveness of the Center's efforts to investigate and resolve incidents.

**Audit Conclusion:** We concluded that the Center's efforts to investigate and resolve incidents were effective.

Factors leading to this conclusion included:

- The Center properly investigated and resolved 35 incidents that we sampled.
- The Center records various types of incidents, not all of which require investigation.
- Our audit report does not include any findings related to this audit objective.

## **EFFECTIVENESS OF THE CENTER'S EFFORTS TO TIMELY ADDRESS MAINTENANCE WORK ORDER REQUESTS**

### **COMMENT**

**Audit Objective:** To assess the effectiveness of the Center's efforts to timely address maintenance work order requests.

**Audit Conclusion:** We concluded that the Center's efforts to timely address maintenance work order requests were moderately effective.

Factors leading to this conclusion included the:

- Observations of the facility, which indicated that work orders were generally completed.
- Majority of the work orders considered to be routine maintenance and not an immediate threat to the safety of patients, staff, or visitors.
- Impact of inaccurate work order information on management's ability to monitor and assign work orders.
- Reportable condition related to inaccurate information in the work order system and untimely completion of work orders.

## **FINDING**

### **3. Work Order Monitoring**

The Center did not ensure that information contained in the electronic work order system was accurate and that maintenance staff always completed work orders timely. If not accurate, the Center cannot use the system as an effective management tool to monitor the status of open work orders and help ensure their timely completion. Not completing work orders timely could potentially impact the safety of patients, staff, and visitors.

The Center used an electronic work order system to submit requests for repairs. During our review of work orders initiated during our audit period, we noted that the data from the system indicated that maintenance supervisory staff disapproved 216 work orders, maintenance staff completed 5,286 work orders, and 239 work orders were outstanding as of May 31, 2014.

Our review disclosed:

- a. The Center did not update the system to reflect that 8 (53%) of 15 judgmentally selected work orders shown as open in the system were actually completed.

The Center indicated that the maintenance staff inadvertently forgot to update the system.

- b. The Center did not have sufficient documentation to support that it completed work orders timely.

Our review of 1,027 completed work orders designated in the system as nonroutine disclosed that 345 (34%) appeared to be completed late based on the required completion date established by the maintenance supervisor and the completion date entered into the system by maintenance staff. The number of days late ranged from 1 day to 396 days, with an average of 14 days late. However, the Center indicated that the completion date in the system was not reliable because the system automatically defaults to the date the maintenance staff made the entry in the system. Maintenance staff need to override the date in the system if they do not enter the work order completion on the same day that the work order is actually completed. In addition, the Center did not maintain paper copies of the work orders on which the maintenance staff document the actual date that they completed the work order.

### **RECOMMENDATION**

We recommend that the Center ensure that information contained in the electronic work order system is accurate and that maintenance staff always complete work orders timely.

### **AGENCY PRELIMINARY RESPONSE**

The Center agrees that there are opportunities for improvement with the overall work order process. However, the Center is also confident that work orders are generally completed in a timely and efficient manner to help ensure the safety of patients, staff, and visitors.

- a. The Center acknowledges that the statuses of some work orders were not updated timely to reflect completion. However, the Center also believes that the results of the Office of the Auditor General's judgmental review are not indicative of the situation in that only a very small percentage of work order statuses were actually not updated timely. The Center indicated that, in response to this finding, it performed a comprehensive analysis of all 22,926 work orders entered into the electronic work order system since its implementation in May 2001. The Center informed us that its review

disclosed that 486 (2.1%) did not have a completion date entered into the system. The Center also informed us that it further investigated these 486 work orders and noted that 73 were duplicate work orders, 60 involved the use of contractors and required separate forms to be completed (such as key requests) and were incorporated into other work orders, 17 were referred to housekeeping, 106 were initially rejected and would not have a completion date, and 40 are current and are still open. The Center further informed us that the final remaining 190 (or 0.8% of all work orders) are currently being reviewed and their statuses will be updated in the work order system accordingly.

The Center informed us that it has established a procedure for a periodic scheduled review of outstanding work orders to ascertain completion status.

- b. The Center agrees that a large percentage of nonroutine work orders did not have documentation to support that they were completed timely. The Center informed us that it completed an in-depth analysis of the 1,027 nonroutine work orders cited in the finding, which revealed that complex work orders or imprecisely defined work order priorities contributed to completion dates being missed. The Center indicated that its analysis showed that complex work orders often contained several tasks with multiple completion dates that probably should have been broken out into several work orders. The Center also indicated that assigned priority levels should have been updated by the maintenance department to help facilitate work orders being completed more timely.

The Center informed us that, as a result, priority levels are now better defined within the context of the scope of the work order with established time frames for completion. The Center also informed us that work orders that have been submitted that have more than one task are broken down into separate individual work orders by the maintenance department so that each task can be monitored for completion. In addition, the Center indicated that explanations for work orders completed outside of prescribed time frames are noted in the work order system. The Center informed us that to ensure performance, the maintenance department now reviews, aggregates, and reports the status of work orders semiannually in its report to Center leadership.



## SUPPLEMENTAL INFORMATION

HAWTHORN CENTER  
Bureau of Hospitals and Administrative Operations  
Department of Community Health

Patient Admissions, Discharges, and Average Daily Census Data  
For Fiscal Years 2003-04 Through 2012-13

<u>Fiscal Year</u>	<u>Admissions</u>	<u>Discharges</u>	<u>Average Daily Census*</u>
2003-04	432	424	73
2004-05	311	334	68
2005-06	515	507	58
2006-07	530	524	58
2007-08	563	573	57
2008-09	731	730	55
2009-10	785	778	59
2010-11	703	725	50
2011-12	536	518	52
2012-13	465	467	54
10-year average	557	558	58

\* The average daily census was calculated by dividing the number of patient days by 365 (366 in leap years).

Source: Prepared by the Office of the Auditor General using data obtained from the Hawthorn Center.

HAWTHORN CENTER  
Bureau of Hospitals and Administrative Operations  
Department of Community Health

Expenditures and Average Cost Per Patient  
For Fiscal Years 2008-09 Through 2012-13

	Fiscal Year					Five-Year Average
	2008-09	2009-10	2010-11	2011-12	2012-13	
Average number of patients	55	59	50	52	54	54
Personnel costs	\$ 18,005,068	\$ 18,821,951	\$ 18,768,257	\$ 19,500,371	\$ 21,431,505	\$ 19,305,430
Average cost per patient	\$ 325,589	\$ 321,194	\$ 374,616	\$ 376,455	\$ 397,616	\$ 359,094
Food service costs	\$ 275,446	\$ 287,997	\$ 273,301	\$ 265,261	\$ 282,616	\$ 276,924
Average cost per patient	\$ 4,981	\$ 4,915	\$ 5,455	\$ 5,121	\$ 5,243	\$ 5,143
Medications and medical supplies costs	\$ 352,407	\$ 358,746	\$ 302,738	\$ 268,340	\$ 224,346	\$ 301,315
Average cost per patient	\$ 6,373	\$ 6,122	\$ 6,043	\$ 5,180	\$ 4,162	\$ 5,576
Fuel and utilities costs	\$ 446,131	\$ 417,183	\$ 400,886	\$ 403,811	\$ 419,070	\$ 417,416
Average cost per patient	\$ 8,067	\$ 7,119	\$ 8,002	\$ 7,796	\$ 7,775	\$ 7,752
Travel costs	\$ 21,904	\$ 28,414	\$ 27,616	\$ 23,790	\$ 35,377	\$ 27,420
Average cost per patient	\$ 396	\$ 485	\$ 551	\$ 459	\$ 656	\$ 510
Materials, supplies, and equipment costs	\$ 1,055,895	\$ 1,215,520	\$ 1,134,612	\$ 1,329,907	\$ 2,140,154	\$ 1,375,218
Average cost per patient	\$ 19,094	\$ 20,743	\$ 22,647	\$ 25,674	\$ 39,706	\$ 25,573
Total agency costs	\$ 20,156,851	\$ 21,129,811	\$ 20,907,410	\$ 21,791,480	\$ 24,533,068	\$ 21,703,724
Average cost per patient	\$ 364,500	\$ 360,577	\$ 417,314	\$ 420,685	\$ 455,159	\$ 403,647

Source: Prepared by the Office of the Auditor General using data obtained from the Hawthorn Center.

# GLOSSARY

## Glossary of Abbreviations and Terms

<b>controlled medication</b>	A drug or other substance, or immediate precursor, included in Schedule I, II, III, IV, or V of the federal Controlled Substances Act (i.e., Title 21, section 801, et seq., of the <i>United States Code</i> , which controls the manufacture, distribution, and dispensing of controlled substances).
<b>DCH</b>	Department of Community Health.
<b>dental assessment</b>	An evaluation completed if a patient has been identified as having poor hygiene, caries, or dental pain.
<b>discharge instructions</b>	Document that identifies any needs the patient may have for psychological or physical care, treatment, and services after discharge.
<b>discharge medication reconciliation</b>	Electronic and printed documents that reflect the medication reconciliation process at the time of discharge.
<b>effectiveness</b>	Success in achieving mission and goals.
<b>EMR</b>	electronic medical records.
<b>fitness assessment</b>	A systematic process of obtaining, verifying, and interpreting data done by a recreational therapist that defines a patient's fitness status and includes recommendations.
<b>FMG</b>	State of Michigan Financial Management Guide.
<b>incident report</b>	A mechanism to document and report events of an unusual nature involving patients. Events requiring an incident report include, but are not limited to, patient deaths, serious injuries to patients, medication errors, manual holds, known or suspected abuse or neglect of a patient, patient suicide attempts, unauthorized leave of absence, etc.

**individual plan of service (IPOS)**

The fundamental document in the individual's record, developed in partnership with the individual using a person-centered planning process that establishes meaningful goals and measurable objectives. The plan must identify services, supports, and treatment as desired or required by the individual.

**internal control**

The plan, policies, methods, and procedures adopted by management to meet its mission, goals, and objectives. Internal control includes the processes for planning, organizing, directing, and controlling program operations. It also includes the systems for measuring, reporting, and monitoring program performance. Internal control serves as a defense in safeguarding assets and in preventing and detecting errors; fraud; violations of laws, regulations, and provisions of contracts and grant agreements; or abuse.

**Joint Commission**

An independent, not-for-profit organization that accredits and certifies more than 19,000 health care organizations and programs in the United States. Joint Commission accreditation and certification are recognized nationwide as a symbol of quality that reflects an organization's commitment to meeting certain performance standards.

**material condition**

A matter that, in the auditor's judgment, is more severe than a reportable condition and could impair the ability of management to operate a program in an effective and efficient manner and/or could adversely affect the judgment of an interested person concerning the effectiveness and efficiency of the program.

**medication**

Any prescription medications, sample medications, herbal remedies, vitamins, nutraceuticals, vaccines, or over-the-counter drugs; diagnostic and contrast agents used on or

administered to persons to diagnose, treat, or prevent disease or other abnormal conditions; radioactive medications, respiratory therapy treatments, parenteral nutrition, blood derivatives, and intravenous solutions (plain, with electrolytes, and/or drugs); and any product designated by the Food and Drug Administration as a drug.

**Mediware**

A pharmacy management system that provides software and hardware solutions. The system has the ability to interface with other systems and modules and, as a result, streamline workflow, automate inventory controls for medicines, and provide accurate and efficient medication management for the general safety of patients.

**mission**

The main purpose of a program or an entity or the reason that the program or the entity was established.

**noncontrolled medication**

A drug or other substance, or immediate precursor, that is not included in Schedule I, II, III, IV, or V of the federal Controlled Substances Act (i.e., Title 21, section 801, et seq., of the *United States Code*, which controls the manufacture, distribution, and dispensing of controlled substances).

**performance audit**

An audit that provides findings or conclusions based on an evaluation of sufficient, appropriate evidence against criteria. Performance audits provide objective analysis to assist management and those charged with governance and oversight in using the information to improve program performance and operations, reduce costs, facilitate decision making by parties with responsibility to oversee or initiate corrective action, and contribute to public accountability.

**pre-planning IPOS worksheet**

An evaluation of the patient and the adults responsible for the patient regarding choices and preferences as they pertain to the treatment plan.

<b>procurement card</b>	A credit card issued to State employees for purchasing commodities and services in accordance with State purchasing policies.
<b>psychiatric assessment</b>	A broad range evaluation of the patient's behavioral, emotional, and mental status.
<b>psychiatric discharge note</b>	Documentation of a face-to-face evaluation of the patient, medications prescribed at discharge, and a discharge plan.
<b>psychiatric discharge summary</b>	A summary of the patient's reason for admission, condition at the time of admission, allergies, pediatric problems, psychiatric medications, lab/EKG findings, condition at discharge, diagnoses, and medications prescribed at discharge.
<b>psychological assessment</b>	A broad range evaluation of the patient's cognitive functioning.
<b>psychotropic medication</b>	A drug that acts primarily upon the central nervous system where it alters brain function, resulting in changes in perception, mood, consciousness, cognition, and behavior. Common types of psychotropic drugs include antidepressants, anti-anxiety agents, antipsychotics, and mood stabilizers.
<b>reportable condition</b>	A matter that, in the auditor's judgment, is less severe than a material condition and falls within any of the following categories: an opportunity for improvement within the context of the audit objectives; a deficiency in internal control that is significant within the context of the audit objectives; all instances of fraud; illegal acts unless they are inconsequential within the context of the audit objectives; significant violations of provisions of contracts or grant agreements; and significant abuse that has occurred or is likely to have occurred.

**seclusion and  
restraint assessment**

An evaluation of the patient and the adults responsible for the patient regarding techniques that may be useful in de-escalating an emergency and any contraindications to seclusion and restraint.

**social work  
assessment**

A broad range evaluation of the patient and family system.

**therapist discharge  
summary**

A summary of the patient's treatment, child and adolescent functional assessment scale score, and discharge plan.





